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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,915	06/27/2003	Yoshihiro Kobayashi	TJK/395	8119
27717	7590	03/30/2005	EXAMINER	
SEYFARTH SHAW 55 EAST MONROE STREET SUITE 4200 CHICAGO, IL 60603-5803			CLEVELAND, MICHAEL B	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,915	Applicant(s) KOBAYASHI, YOSHIHIRO	
	Examiner Michael Cleveland	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 12-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12-13 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarnecki (U.S. Patent Application Publication 2003/0089252, hereafter '252) in view of Towns et al. (U.S. Patent 6,153,711, hereafter '711) and Yamazaki (U.S. Patent Application 2002/0003397, hereafter '397).

'252 teaches forming an electroluminescent element by intaglio printing a light-emitting material [0008, 0010]. '252 does not explicitly teach that the ink has a viscosity of 0.5-500 cP. However, '252 does teach that the viscosity should be chosen to be a suitable viscosity for gravure printing and that such viscosities are taught by Towns '711 [0020]. Towns '711 teaches ink viscosities of 1-200 cP (col. 2, lines 56-67). The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have chosen a viscosity of 1-200 cP as the particular viscosity of '252 with a reasonable expectation of success because '711 teaches that 1-200 cP are suitable printing ink viscosities and because '252 teaches using the viscosities of '711.

'252 and '711 are described above. '252 teaches that multiple colors are applied and that each color is dried (i.e., hardened) before the next color is applied [0022], but does not teach that a later color is printed after a protective layer is placed over the already printed colors. However, '252 does teach that screen printing is an art-recognized method of printing EL inks [0004]. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

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Further, '397 teaches that EL inks may be screen printed (i.e., a process in which a mask (i.e., a thin protective layer (i.e., a film)) covers the undesired areas, and ink is spread over the mask in order to print the desired pattern) [0024]. The ink may have a viscosity of 1-50 cP [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have printed the second or third ink of '252 by the screen printing method of '397 with a reasonable expectation of success because '397 teaches that screen printing an EL ink with a viscosity of 1-50 cP is an operative method of depositing an EL material.

Claim 16: '252 teaches that the depth of the cells is a result-effective variable because it controls the thickness of the film formed [0011]. It has been held that the discovery of the optimum value of a result effective variable in a known process is ordinarily within the skill in the art. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the depth of the cells of '252 to have achieved the desired thicknesses of [0022].

Claim 17: The intaglio is formed into plural cells to print pixels [0009], [0011].

Claims 18: Separate stations may be used for each color [0022]. Thus, the area of the group of cells that provide ink from one printing plate is smaller than the total area of the light-emitting layer on the formed device because the total area of the emitting pixels comprises all three colors.

3. Claims 14-15 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarnecki '252 in view of Towns '711 as applied to claims 1-2 above, and further in view of Minamino (U.S. Patent 6,197,379, hereafter '379).

'252 and '711 are described above. '252 teaches that multiple colors are applied, but does not teach that a later color is printed while a previous color is still wet.

'379 teaches that in coatings applied by method such as gravure coating, external defects may be decreased by applying the next coating before the previous one has dried. Such "wet-on-wet" coating allows simultaneous drying as well (col. 1, lines 21-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the second color before the first had dried in order to have avoided external contaminants and to have eliminated separate drying steps for each color.

Response to Arguments

4. Applicant's arguments filed 1/24/2005 have been fully considered but they are not persuasive.

Applicant argues that the invention of claim 12 allows subsequent printing without damaging the preliminary printed light emitting layer by a printing plate, and that '397 does not teach this advantage. However, the argument is not commensurate in scope with the claims, which do not recite that no damage occurs via a printing player. Also, the result does not represent a non-obvious advantage because the screen printing process of '397 suggested for subsequent processes does not use a printing plate for its printing, and therefore would not incur damage from a printing plate. Even if Applicant amended the claims to recite that all printing steps are performed with an intaglio, the argument would be unconvincing in view of the teachings of Park et al. (U.S. Patent 5,053,298) which suggests forming different colored pixels by covering each color before applying the next.

Applicant argues that '379 does not teach that separate coating steps. Applicant argues that '379 does not teach that a subsequent coating is applied between the application of a previous coating and its solidification (i.e., drying). The argument is unconvincing because it is incorrect (col. 1, lines 27-30). Also, it does not address the teachings of Sarnecki, which fairly teaches printing pixels separately in different areas, by a method such as intaglio printing.

Applicant's argument regarding the unexpected results of lack of damage are unconvincing because they are not commensurate in scope with the claims and because the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Park et al. (U.S. Patent 5,053,298) is cited because it suggests forming different colored pixels by covering each color before applying the next.

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Monday-Thursday, 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Michael Cleveland
Primary Examiner
Art Unit 1762

3/24/2005